HAZARDOUS MATERIALS INCIDENT RESPONSE OPERATIONS (165.5)
5 DAYS

This course is designed for personnel involved with the investigation and remediation of uncontrolled hazardous waste sites and, to a lesser extent, response to an accident involving hazardous materials. It provides basic information needed to meet the requirements of 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response).

After completing the course, participants will be able to:

- Identify methods and procedures for recognizing, evaluating, and controlling hazardous substances.
- Identify concepts, principles, and guidelines to properly protect site or response personnel.
- Discuss regulations and action levels to ensure health and safety of the workers.
- Discuss fundamentals needed to develop organizational structure and standard operating procedures.
- Select and use dermal and respiratory protective equipment.
- Demonstrate the use, calibration, and limitations of direct-reading air monitoring instruments.

After completing this course, participants will be more knowledgeable in hazardous waste operations, team functions, personnel health and safety procedures, and operation of field monitoring equipment.

In some segments of the course, participants are required to wear respiratory equipment, which precludes wearing eyeglasses. Individuals who are severely restricted without their glasses should be aware that their participation may be limited unless they have contact lenses, their own spectacle kit or spectacle-equipped respirator facepiece. During some exercises, participants are required to wear chemical protective clothing, which may be stressful to certain individuals. Participation in these exercises is not required, but attendance is required. Individuals who are not currently participating in a medical surveillance program should consult their physician before attending this course.

Note: This course meets the U.S. Occupational Safety and Health Administration's requirement (29 CFR 1910.120) of a minimum of 40 hours of classroom safety training for hazardous waste site workers.

Continuing Education Units: 3.8
ABIH Certification Maintenance points: 4.5

Course Dates and Locations

1999

September 27 – October 1	Edison, New Jersey	November 1–5	Region 2
October 4–8	Cincinnati, Ohio	November 29 – December 3	Region 7
October 4–8	Region 3	November 29 – December 3	Edison, New Jersey
October 18–22	Region 1	December 13–17	Region 8
October 25–29	Cincinnati, Ohio		

2000

January 3–7	Cincinnati, Ohio	May 15–19	Cincinnati, Ohio
January 10–14	Region 4	May 22–26	Region 2
January 24–28	Region 6	June 5–9	Region 4
January 24–28	Cincinnati, Ohio	June 12–16	Edison, New Jersey
January 31 – February 4	Edison, New Jersey	June 19–23	Region 9
February 7–11	Region 9	June 26–30	Cincinnati, Ohio
February 28 – March 3	Cincinnati, Ohio	July 10–14	Edison, New Jersey
March 6–10	Region 10	July 24–28	Region 8
March 13–17	Edison, New Jersey	July 31 – August 4	Cincinnati, Ohio
March 20–24	Region 5	August 7–11	Region 1
April 3–7	Edison, New Jersey	August 21–25	Edison, New Jersey
April 3–7	Region 3	August 21–25	Cincinnati, Ohio
April 10–14	Cincinnati, Ohio	August 28 – September 1	Region 10
April 17–21	Region 6	September 11–15	Edison, New Jersey
May 1–5	Edison, New Jersey	September 11–15	Region 5
May 1–5	Region 7		

Agenda

HAZARDOUS MATERIALS INCIDENT RESPONSE OPERATIONS (165.5)

City, State
Month, Date, Year

COURSE DIRECTOR: , Tetra Tech NUS, Inc.
INSTRUCTORS: , Tetra Tech NUS, Inc.
, Tetra Tech NUS, Inc.
TECHNICIAN: , Tetra Tech NUS, Inc.

DAY and TIME	***SUBJECT***	***SPEAKER***
Monday, Date		
8:15 – 8:55 a.m.	Orientation / Introduction	
9:05 – 9:30 a.m.	Introduction to 29 CFR 1910.120	
9:40 –11:10 a.m.	Hazard Recognition	
11:20 –12:20 p.m.	Air Monitoring Instruments (CGI, O2, Detector Tubes)	
12:20 – 1:20 p.m.	LUNCH	
1:20 – 2:20 p.m.	Air Monitoring Instruments II	
2:30 – 4:00 p.m.	Exercise A: Using Air Monitoring Instruments I	
	Exercise B: Using Air Monitoring Instruments II	
4:00 – 5:30 p.m.	Exercise A: Using Air Monitoring Instruments II	
	Exercise B: Using Air Monitoring Instruments I	
Tuesday, Date		
8:00 – 9:20 a.m.	Toxicology and Exposure Guidelines	
9:30 –10:20 a.m.	Respiratory Protection Programs	
10:30 –12:00 p.m.	Respirator	
12:00 – 1:00 p.m.	LUNCH	
1:00 – 2:20 p.m.	Levels of Protection / Protective Clothing	
2:30 – 4:15 p.m.	Exercise A: Air-purifying Respirators	
	Exercise B: Self-contained Breathing Apparatus	
4:15 – 6:00 p.m.	Exercise A: Self-contained Breathing Apparatus	
	Exercise B: Air-purifying Respirators	

DAY and TIME	*SUBJECT*	*SPEAKER*
Wednesday, Date		
8:00 – 9:10 a.m.	Site Entry and Reconnaissance	
9:20 –10:40 a.m.	Exercise A: Radiation Exposure Hazards and Monitoring	
	Exercise B: Level “B” Dressout	
10:40 –12:00 p.m.	Exercise A: Level “B” Dressout	
	Exercise B: Radiation Exposure Hazards and Monitoring	
12:00 – 1:00 p.m.	LUNCH	
1:00 – 1:50 p.m.	Decontamination	
2:00 – 2:50 p.m.	DEMONSTRATION: Donning and Doffing	
3:00 – 4:30 p.m.	Exercise A: Level “A” Dressout	
	Exercise B: Decontamination	
4:30 – 6:00 p.m.	Exercise A: Decontamination	
	Exercise B: Level “A” Dressout	
Thursday, Date		
8:00 – 9:00 a.m.	Response Organization and Incident Command	
9:10 –10:15 a.m.	EXAM	Staff
10:30 –12:00 p.m.	Abandoned Chemical Warehouse Exercise	Staff
12:00 – 1:00 p.m.	LUNCH	
1:00 – 5:00 p.m.	Abandoned Chemical Warehouse Exercise (cont.)	Staff
5:00 – 6:00 p.m.	Exercise Critique and Response Organization for Superfund Site	Staff
Friday, Date		
8:00 –12:00 p.m.	Superfund Site Exercise	Staff
12:00 – 1:00 p.m.	Exercise Critique	Staff
1:00 – 1:30 p.m.	Course Closing	Staff

REQUIREMENTS

HAZARDOUS MATERIALS INCIDENT RESPONSE OPERATIONS (HMIRO) (165.5)

FACILITY REQUIREMENTS

1. Classroom Space

A minimum of three rooms of approximately 50×30 feet is required. One room will serve as the primary classroom. It should contain enough tables and chairs to comfortably seat 28 students and provide about 3 linear feet of desk space per student. Two extra tables will be needed at the rear of the classroom for instructor use. A second room will be used as an ancillary classroom (for up to 14 students) during split sessions. The third room will be used for equipment storage, assembly, and maintenance. The classrooms should have adjustable lighting, adequate ventilation, and electrical outlets, and be close in proximity to allow equipment to be easily moved between rooms. Hotels are not suitable for this course.

2. Facility Access

For security and accountability of EPA property, **ERTP staff will require 24-hour exclusive access to and use of the classrooms from course setup through closure**. The course director will arrange the initial setup time and discuss exclusive use requirements with the facility contact. If classrooms are not on the ground floor of the facility, elevator access should be provided for movement of equipment throughout the facility.

3. Visual Equipment

The classroom should contain the following materials:

- Chalkboard, chalk, and erasers **or** white board, markers, and erasers.
- One-half-inch VHS VCR with color monitor (minimum 19-inch diagonal).

These materials will be needed Monday morning through Friday afternoon. If the VCR and monitor are not available at the facility, the local contact must locate a nearby rental agency and make arrangements to have the desired equipment delivered to the facility for use during the course. These arrangements should be made in a timely fashion to ensure availability. If the remaining materials are not available at the facility, please notify the course director so alternate arrangements can be made to ship these materials to the facility.

4. Outdoor Space/Field Exercise Area

The following areas must be made available for the incident simulations on specified days of the week:

A. Two rooms of approximately the same size *(preferably about 30×50 feet)* are required to simulate two identical abandoned chemical warehouses. Only one entrance to the room is necessary. If two rooms are unavailable, one large room *(40×60 foot minimum)* that can be divided will suffice. These rooms should be in close proximity to the classrooms and equipment storage area. No changes or substitutes may be made unless the course director determines that the proposed changes or substitutes will not negatively impact the exercises. Please note that these two rooms are in addition to the other three rooms. Additional indoor or outdoor space *(approximately 100×40 feet)* is also needed for the decontamination area.

B. An outdoor grassy area of about 100×200 feet in close proximity to the facility is required for the exercises during the week and for the Superfund site simulation on Friday.

5. Breathing Air Supply

The facility contact will be responsible for supplying the needed breathing air for the various HMIRO exercises. HMIRO requires a minimum of 4,320 cubic feet (approximately 18 cylinders at 240 cubic feet/ cylinder) of breathing air onsite to recharge SCBA air cylinders. If the facility contact is unable to supply breathing air for the course, then he or she should contact the HMIRO course director at least 6 weeks prior to the start of the course and provide a copy of the local yellow pages listings for "welding equipment and supplies." If the facility has a cascade or recharge system, it must be available to the ERTP staff from Monday afternoon through Friday morning during the course.

6. Actors

The following actors *(they should not be known to the participants)* are suggested for the Friday response incident exercise. They will add to the realistic effect of this exercise. Their participation will be coordinated by the course director.

A. A concerned citizen.

B. A reporter (the most important player). This actor is essential, even if the other participants are unavailable.

C. A local health official, mayor, or council member.

7. Refreshments and Meals

Coffee and soft drinks that students can purchase should be available near the classroom. A list of nearby, quick-service restaurants and maps to these restaurants should be provided to Environmental Response Training Program (ERTP) Training Registration 8 weeks prior to the course.

8. Telephones

The facility should have telephones available for outgoing telephone calls. The facility contact should provide the course director with a telephone number that can be used for incoming emergency calls and messages.

9. Maps and Area Information

A legible map (not hand drawn) indicating the locations of the facility and area hotels should be sent to ERTP Training Registration 8 weeks prior to the course. Hotel names, addresses, telephone numbers, and regular and government rates should be included. Directions to and from the airport should also be provided, either on the facility and hotel map(s) or on a separate map. In addition, please include the telephone number of the local chamber of commerce.

PARTICIPANT INFORMATION

This course is designed for personnel involved with the investigation and remediation of uncontrolled hazardous waste sites and, to a lesser extent, response to an accident involving hazardous materials.

No more than 28 participants may be enrolled in each HMIRO course. Any deviations in class size must be approved in advance by the course director. ERTP Training Registration and the local contact must coordinate participant registration. Any questions the participants have about enrollment in ERTP courses should be directed to ERTP Training Registration (participants in EPA Regions 1, 6, and 8 should direct questions to the regional training contact).

The local contact should inform participants of the following course-related information:

- Work clothes and appropriate outdoor clothing (in case of inclement weather) are recommended.
- Participants who are severely restricted without their eyeglasses may want to bring a spectacle kit suitable for the MSA II self-contained breathing apparatus (SCBA). Contact lenses can be worn with SCBA.
- The course lasts 5 days.
- Classes begin at 8 a.m. and run until 6:00 p.m. Monday through Thursday; the course ends at 1:30 p.m. on Friday.
- To receive an EPA course certificate, 100-percent attendance is mandatory.

SHIPPING REQUIREMENTS

1. Facility Contact

The name and telephone number of the facility contact should be provided to ERTP Training Registration. The facility contact will be responsible for receiving a shipment from a commercial carrier of approximately 100 shipping cases and 55-gallon drums weighing 6000–6500 pounds. The equipment will arrive on Friday before the course and must be stored in a secured area until setup. The facility contact should keep all shipping manifests and Federal Express airbills and give them to the course director.

2. Equipment Delivery

Normal delivery of equipment is on the Friday prior to the start of the course between 12:00 noon and 2:00 p.m. via commercial carrier with tractor-trailer. The course director will verify whether the shipment has been received at the facility. ERTP staff will call the commercial carrier to trace the shipment, if necessary.

The commercial carrier will have an assistant to help move the equipment into the designated rooms; facility staff are restricted from helping unload the equipment. If the commercial carrier has any problems, ERTP staff will be contacted by the carrier for assistance.

Course materials are shipped via Federal Express. The physical address (if different from the mailing address), telephone number, and hours of operation for the facility must be provided to ERTP staff so shipping arrangements can be made. Federal Express will not deliver to post office boxes or leave materials after hours.

Facility and facility staff must be able to receive shipments of compressed gas cylinders and provide an area suitable for delivery and storage of breathing air cylinders.

3. Bills of Lading

When receiving equipment, the facility contact should sign the moving subcontractor's bill of lading and accessorial services. The driver will leave a copy of all shipping documents, which should be given to the course director.

When the commercial mover picks up the equipment, the facility contact should sign the moving subcontractor's bill of lading and accessorial services and forward them to ERTP, 1930 Radcliff Drive, Cincinnati, OH 45204.

4. Shipping Equipment

Normal pickup for equipment is on the Friday of the course between 12:00 noon and 2:00 p.m. The commercial carrier will arrive with an assistant to load the equipment; facility staff are restricted from loading the equipment. If the commercial carrier has any problems, ERTP staff will be notified by the carrier.

Materials returning to Cincinnati via Federal Express will be picked up between 12:00 noon and

4:30 p.m.

5. Shipping Preparations Questionnaire

The following information assists ERTP in making shipping arrangements to local facilities. Local contacts should be prepared to answer the following questions when signing an Agreement to Host.

- Is there 18-wheel truck access to the facility?
- Is the area where equipment will be off-loaded >75 feet from where the truck will dock?
- Are there stairs to the classroom? If so, how many flights?
- Is there an elevator the commercial movers or Federal Express employees will have to use?
- Will delivery on the Friday before the course between 12:00 noon and 2:00 p.m. be a problem?
- Does the facility close early on Fridays?
- What are the normal operating hours of the facility?